GOING FROM A DEFENSIVE CULTURE TO AN OFFENSIVE CULTURE
OR
PREVENTION VERSUS MITIGATION
(Should the Fire Chief be replaced?)

STRATEGIC ANALYSIS OF COMMUNITY RISK REDUCTION

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ABSTRACT

A steady growth in the number and type of emergency responses is out pacing the growth in budgets in most fire departments. To do more with less became an unrealistic approach. What was needed was a redistribution of resources accomplished by redefining priorities. The problem must be attacked earlier, in the prevention stage, not later, in the mitigation stage where options would be dictated by the emergency. The new strategy would require most departments to change from a defensive culture to an offensive one. This transformation would be so major that the move might require that the Fire Chief be replaced.

The purpose of this research was to study the current fire service trend toward preparing for mitigation, and how working to prevent emergencies instead would entail a cultural change. An accompanying purpose was to ascertain whether the Fire Chief must be replaced in order to accomplish a change in culture. Answers were sought for the following questions:

1. How does risk reduction compare in priority to mitigation?

2. What does it take to change organizational culture?

3. How much of organizational culture is derived from the leader?

4. What leadership traits make the Fire Chief a good change agent?

5. Can a culture change occur with an incumbent chief executive officer (CEO)?

The evaluative research method used, included a review of pertinent literature as well as a survey sent out to some fire service professionals and personal communications with others.

The University of Texas at El Paso and the El Paso Fire Department Training Academy libraries provided the literature. Three hundred copies of the survey were distributed by mail and within the author's department. A little more than 50 percent of these were returned completed. The personal communications were done via telephone and face to face.

The results of the research indicated a lopsided dedication of resources in favor of mitigation. One important reason for this was tradition in the fire service or, *the culture*. To change the culture would entail the CEO and a Top Management Team convincing department personnel, citizens and government officials of the benefits of preventing emergencies. Some programs found in the literature review was evidence of this.

Also learned was that the principal change agent would be the Fire Chief. The easiest way for the chief to act as such would be if he brought no contrary history or baggage into the office of chief.

The recommendations of this study, were for fire departments to evaluate all emergency responses, not just fire related, by frequency and type, to develop prevention strategies to prevent these and for administrations to rethink budget allocations to "allow" prevention rather than "have to" mitigate. Also, the right "line chiefs" would have to be assigned to make the culture change work. Finally, because of the long history of "tradition" in the fire service a new chief, without the anchor of existing paradigms would have to be assigned as the principal change agent.

TABLE OF CONTENTS

INTRODUCTION

Problem Statement

Fire departments nationwide record yearly statistics which invariably show a steady growth in the number of responses to emergencies. The types of emergencies include an increasing number of non-fire related crises. Concurrently budgets are becoming more and more restrictive thus creating pressure on management to develop cost-effective contingency plans to match the needs to the capabilities. "Doing more with less" is an approach used by some administrators as a way to deal with expenses which are out pacing revenues. Unfortunately, carrying this philosophy to the extreme would have agencies "Doing all with nothing." The redistribution of resources by redefining priorities is a more realistic approach. The problem must be addressed earlier, at the prevention stage, rather than later, at the mitigation stage, where the solutions are often dictated by the problem. To achieve this new strategy, it is necessary to change the culture of the department from a defensive one to an offensive one. The fire service is traditionally in business to fight fires and save lives. In the majority of fire departments a transformation form defensive to offensive would be so monumental that to accomplish this might require that the Fire Chief be replaced.

Purpose Statement

The purpose of this research project was to examine the prevalent trend which focuses resources on fire suppression, and how changing the priority and spending to prevention, an means the department's culture must change. Also studied were the strong ties between organizational culture and the chief executive officer, the Fire Chief. Would revising the former require replacing the latter? An

evaluative research method was used to look at the many facets of culture changes and the leader's

influence on these. The research sought to answer the following questions:

1. How does risk reduction compare in priority to mitigation?

2.   What does it take to change organizational culture?

3. How much of the organizational culture is derived from the leader?

4. What leadership traits make the Fire Chief a good change agent?

5. Can a culture change occur with an incumbent chief executive officer?

BACKGROUND AND SIGNIFICANCE

Historically as well as statistically reports reveal that emergency response agencies must deal

with a growing number of incidents every year. Fire incidents no longer make up the greatest

percentage of responses. Medical calls comprise a large part of fire department calls, along with water

and mountain rescue, hazardous materials spills and so on.   Today many fire departments run non-

emergency service programs in an effort to improve the quality of life in their communities. This raises

their value in the eyes of citizens as well as government officials and encourages public support

(Granito, 1995). Some fire departments have adopted agency names more reflective of the new

multiple-service organization. Among these are, City of Fairfax Department of Fire & Rescue, City of

Oakland Fire Services Agency, Marion County Fire-Rescue and City of Edmonton Emergency

Response Department. In the enclosed survey forty-four (44) percent of the respondents "Totally

agree" that becoming an offensively postured department must include an approach to reduce all risks in

the community not only fires. Five (5) percent "Totally disagree" with this statement. (See Appendix A)

Although adaptability is a major strength of the fire service, costs in equipment, personnel and, most unfortunately, lives, cannot continue to be addressed after the fact. Community risks must be analyzed globally and prevention programs put in place. Firefighters believe that their profession commands them to maintain levels of training, physical fitness and equipment capability and availability to be the best possible *mitigators* of any emergency to which they are called. This, almost universally held, belief makes the culture in most fire departments a defensive one.   To focus efforts on prevention and assure the loss of lives, destruction of property and the number of injuries are diminished, the entire department's culture must be restructured into an offensive one, addressing issues before they become harmful emergencies to the citizens.

Any organization's culture is so intimately bound to its chief executive officer and the leadership this office holder offers, that a major conversion in culture must include ascertaining whether the top person has to be replaced or if the boss can survive the same metamorphosis to which the organization must be subjected. A literature review of leadership indicates interesting viewpoints relative to this question.

As research into these concerns progressed, the lessons in **Strategic Analysis of Community Risk Reductions** gained relevance. The last unit in the course, "Executive Influence" is explicit about the importance of the leadership of an organization when specific strategies and tactics are adopted and implemented to move toward definite goals. The rest of the units were inexorably woven throughout the findings and explanations. Coalition Building, Unit 4 was highlighted in discussions about whom all should be involved in seeking and developing solutions for community risks. Unit 5, "Analysis," was an

extensive operation utilized throughout the study of so many aspects of prevention measures, ranging

from "Education and Behavior Change Interventions," Unit 6, to "Engineering Technology

Interventions and Transfers," Unit 8. Also integrated in attempting to decipher answers to the research

questions were "Program Design" and "Evaluation," Unit Nine and Unit Ten respectively.

LITERATURE REVIEW

A vast variety of literature dealing with issues of organizational transformation in general and a

cultural change specifically does exist. Questions of leadership fill innumerable volumes. Also available

for review was literature specific to greater emphasis on prevention. The University of Texas at El Paso

Library provided many selections on the former two topics. Fire Service magazines and professional

publications such as the National Fire Protection Association (NFPA) Journal and the Fire Chief's

Handbook yielded information on the latter.

In their book, **"Re-engineering Your Business**," Daniel Morris and Joel Brandon (1993)

explain that change provides new opportunities and it motivates the development of newer, better

management practices. Going from mitigating efforts to preventive ones should definitely open doors

not visited before by the conventional fire departments. They add that if a proposed change clashes

with a paradigm, the result will be a feeling of threat. Another major impediment to moving forward is

corporate culture, explain Morris and Brandon (1993). In a profession where physically demanding, at

times heroic deeds was the impetus for joining originally, personnel may find prevention work mundane,

non-glamourous and indeed culturally shocking. This book further explained the importance of the chief

executive officer as a change agent stating that management must take the lead in promoting change and that re-engineering requires the direct involvement of executives from start to finish.

"Organizational Change and Redesign," by George P. Huber and William H. Glick (1993), reiterates that top managers' beliefs determine the organizational strategies, structures and cultures. The authors add that these leaders can inhibit change, especially, it is suggested, more acutely when the CEO's tenure begins to exceed some industry related duration, generally about seven years. Huber and Glick (1993) further hold that the performance of an organization is ultimately a reflection of the top manager.

This performance is organized activity aimed at creating a value which is greater than the cost of producing that value, so expound Karlöf, Wiley and Sons (1996) in **"Conflicts of Leadership**." This, of course, justifies resources dedicated toward prevention in an effort to avoid the higher costs associated with mitigation.

The importance of the Chief Executive Officer as a change agent is emphasized in **"The Will to Lead"** as Snyder and Clontz (1997) explain that bureaucracies existing in every

organization tend to resist change. In fact, the tome adds, bureaucracies exert tremendous influence on the way people behave and cause them to spend their time and energy protecting the status quo. Often the Fire Chief, as CEO, is the head of such a bureaucracy.

Leaders who see the organization as "their" company (department) can be a demoralizing factor because the relentless aggrandizement of these people leads organizations to fall prey to the "heroes and drones" syndrome which implicitly demeans the contributions of those who fail to achieve top rank. This is according to **"The Leader of the Future**," by Hesselbein, Goldsmith and Beckhard (1996).

They add that no one can force another person to learn if the learning involves deep changes in beliefs and attitudes and fundamental new ways of thinking and acting. A chief reorganizing a department from defensive to offensive might fall in this category. Culture cannot be manipulated, this text reveals, simply by announcing changes or instituting programs.

The **FIRE CHIEF'S HANDBOOK**, in detailing operations with which a chief or aspiring chief should be familiar to be successful, asks whether prevention personnel ever outnumber suppression personnel in a department. The answer is another question. If the fire service does not make prevention a priority, who will (Bachtler and Brennan, 1995)? This "bible" for the fire service includes two examples of how a city's fire suppression ability is graded. In one of these, the 1980 Fire Suppression Rating Schedule, prevention efforts are not mentioned in determining the requirements of fire safety operations are fulfilled by the municipality being rated. In the 1974 Municipal Grading Schedule, prevention is one of eight items listed under "Fire Safety Control." Fire safety control is one of four major categories studied for grading. This entire category can cost a city 650 of a possible 5000 deficiency points. Arithmetically, at least, prevention would be worth 1/8 of 650 or 81.25 points of the 5000. This is a mere 1.68 percent of the total.

Authors Schaenman, Stambaugh, Rossomando, Jennings and Perroni (1990), list seventy-seven prevention programs. They also include a chapter explaining how to evaluate the success rate of these programs in **"Proving Public Fire Education Works**."   Their graphs and charts depict statistics before the inception of programs and compare these to statistics after a period under the program. These instruments also show bars and graph lines to indicate where the program evaluators projected statistics would be without the program.

The **National Fire Protection Association (NFPA) Journal**, reviewed from 1991 through

1996 contained numerous articles on prevention programs and attributes of an effective chief. One

article explained that the adoption of different Fire Codes by different states caused monetary and

compliance problems for developers involved in numerous jurisdictions.   If the ultimate intent of said

code is to make buildings fire safe, one single national code would accomplish this much more

efficiently. Other Journal articles sprinklers systems, as life saving devices when a fire does occur, and

the continuing problems of cigarette smoking as a leading cause of fire deaths. One article in the NFPA

Journal by Bukowski (1991) studied four years in which statistics revealed that 79% of fire deaths

occur in the home as do 69% of fire injuries.   In one NFPA Journal article by Paul Teague (1995)

quotes a fire protection firm as saying , "Prevention is what the fire service is all about - it's what the fire

service is for." The level of consciousness has to be raised in citizens, public officials and firefighters.

Half the budget should be for prevention. In the same piece, Teague explains how the NFPA formed a

partnership with Lowe's Home Safety Council to work on a new injury prevention curriculum for

children, their families and their communities.

Robin F. Paulsgrove (1996) relates that the city of Austin, Texas is looking at a broad arena of

safety services, focusing on emergency prevention while maintaining safe and effective emergency

response.

In several articles in **FIRE CHIEF**, Ronny Coleman (1991) elucidates the reader on the many

traits an effective fire chief must have. He highlights the need to value all personnel as resources and

actively seek their input in decision making processes and projects. A study of good leaders will

illustrate that most of these were successful in galvanizing the efforts of large numbers of people besides

themselves.   Coleman (1996) also holds that fire chiefs must become more politically astute. He or she should have a personal philosophy regarding the chief's approach to practically every problem.

In the December 1991 issue of **FIRE ENGINEERING**, Mary Jane Ditman addresses the need to begin fire prevention efforts with the younger population with a variety of approaches. She speaks of Juvenile Fire Setters programs, of the Consumer Product Safety Commission issuing a subpoena to cigarette lighter manufactured to produce child resistant lighters, how family violence leads to fire setting, how what children see on television influences them, as young as three or four, to play with fires.

Prevalent throughout the material reviewed was the theme of cooperation among the entire community in the effort to reduce injuries. In the periodical **FIRE COMMAND**, Ward (1990) reveals that in Manitoba, Canada, a $45,000 classroom on wheels was built, equipped and is operated with the participation of the Kiwanis Club, Simplot Chemical Ltd., the Fire Fighters Burns Fund, the Optimist Club, Veterans groups, McDonalds, the Manitoba Fire College and more. Major Donald D. Cummins (1990), Assistant Fire Marshal for the Louiseville Division of Fire in Kentucky writes that his department has a program wherein firefighters attend all neighborhood association meetings, a speakers bureau is maintained to provide speakers for special projects and activities in neighborhoods and neighborhood chats are hosted by the mayor and the city's Fire Division. The Philadelphia Fire Department boasts of having 93 fire companies with 250 ambassadors of fire prevention/fire safety spreading the message on a 24-hour basis, explains John J. Skarbek (1992) in **FIRE ENGINEERING**.

In his report for the National Fire Academy's Executive Fire Officer Program, Nyle Zigmund

(1997) points out that one only has to be aware of the national fire statistics showing very little reduction in loss of life and property over the past decade to conclude that a suppression approach has limited effectiveness.

PROCEDURES

The literature review for this project was divided between the library at the University of Texas at El Paso (UTEP) and the library at the El Paso Fire Department (EPFD) Training Academy. The university library yielded abundant material pertinent to leadership and its impact on establishing organizational strategies, structures and culture. Also found at UTEP was information on methods for achieving major cultural change within an organization and the CEO's impact on these. The library at the EPFD Training Academy was replete with professional journals, fire service magazines and text books on the fire service.

To learn what active firefighters thought about changing the priorities of fire departments from training and equipping for mitigating emergencies to developing and presenting programs to prevent crises, a survey was used (See Appendix A). The questions were intended to ascertain what amount of work was entailed in making the necessary culture change and whether this change required a new Fire Chief.

Four hundred copies of the survey were printed for distribution. Three quarters of these were disseminated throughout the authors own department, which is comprised of six hundred plus personnel assigned in varying proportions to suppression, prevention, training, maintenance and other functions.

One hundred copies were mailed to the author's colleagues in departments throughout the nation and Canada. Addresses for these were obtained from class rosters from National Fire Academy classes the author had attended. A letter explaining the scope and aim of the Applied Research Project was included with the mailed surveys (See Appendix B), but not with the locally disbursed ones. The author was available to answer any questions for the latter group. Of the three hundred surveys distributed to the EPFD, 85 were returned, or 28 percent. The surveys sent nationwide saw a better return. Seventy-four of one hundred surveys were returned.

The replies were tabulated (See Appendix A). Conclusions were drawn from these for use in the results.

Limitations

While the survey questions were scrutinized for possible biases, it is impossible to remove these completely because one cannot enter the reader's mind to know exactly how interpretations are derived. Some of the inquiries made to the author by respondents from his department, indicated this. However, inquiring respondents themselves revealed a belief that a particular culture existed. Questions from personnel in *suppression*, the long and strongly held traditional reason for the existence of the professional firefighters, were expressed in terms of offensive (proactive) versus defensive (reactive) *firefighting*. Most were adamant in their stance that the El Paso Fire Department did not fight fires from the outside, but from the inside of the burning building and rather aggressively.

Those respondents working in the EPFD's Fire Prevention Division who talked to the author about the survey did so only to verify that what was meant was preventing emergencies (an offensive culture) versus mitigating emergencies (a defensive culture).

The assumption must be made that some of the survey respondents from other areas of the country also share the more narrowly focused view of suppression specialists

Another limitation that noted, is the eventual relation between the survey questions and other research performed. The survey was developed and distributed at the start of the research project in order to obtain completed forms in time to include the data derived therefrom in the paper. As the literature review and other research progressed, it became apparent that some of the survey questions would not relate well to the information discovered.

RESULTS

Throughout the two weeks of the Strategic Analysis of Community Risk Reduction course, the author gained a perspective of the fire service which before had been only of peripheral concern. After 26 years of typically minded fire service mentality, that of prioritizing operations to quickly and efficiently deal with whatever contingency arose, the author admitted that, while that side of the profession is vital, it is not more important than the need to reduce the losses in life, limb and property by preventing the emergency. Determining the need to change the fire department's culture, to develop a new priority and ascertaining how strongly said culture is tied to the fire chief were two purposes for this research. The questions for this research project were born during the two weeks spent in Emmitsburg.

1. How does risk reduction compare in priority to mitigation?

One obvious answer to this question is the 1997 Fiscal Year Operating Budget for the author's

department. Of a total of thirty-seven million dollars, a little more than one million was dedicated to

Prevention. Twenty-eight million went to Suppression. Of El Paso Fire Department's six hundred

twenty-three uniformed personnel, twenty-five are assigned to the Fire Prevention Division. Fire

Department dollars still go to personnel and equipment for suppression while fire prevention and public

education are inadequately supported. Fire inspections and education are not considered as glamorous

as fire fighting; we've got to change that perception, beginning with fire department training academies

(Henry, 1990).

Fire Suppression Technician Richard Bahena, with the EPFD Training Academy, relates that

the Texas Commission on Fire Protection, in setting standards for firefighters in the state, requires 458

hours of training for certification. Four training hours cover inspections and sixteen touch on Public

Education and Prevention. The EPFD Training Academy recruit class is 906 hours long. Inspections,

Public Education and Prevention get no more attention than the state's minimum requirement (Personal

communication December 21, 1997).

Many members of the fire service have taken a reactionary stand in the area of active fire

protection (Shouldis, 1995). Local government budget writers and many fire chiefs are among the

skeptics who question public fire education's effectiveness (Shaenman, Stambaugh, Rossomando,

Jennings and Perroni, 1990).

A telephone visit with Adolph Zubia, Fire Marshal from Las Cruces, New Mexico, a city

rapidly approaching a population of 100,000, revealed the same disproportionate attention to

prevention. In this 105-person department, serving the second biggest city in the state, only six

uniformed employees are assigned to prevention. Six percent of the department's budget is dedicated

to this division. Fire Marshal Zubia adds that his department is the leader in the state in per capita

staffing of prevention services. (Personal Communication, February 20, 1998).

Tyler, Texas also reports that a small percentage of the department's budget goes to prevention

efforts. Four firefighters are assigned to this work while 105 people work in suppression. Nine other

employees are in department support services. This information was related to the author by Tyler Fire

Department Fire Chief Tom Mooney. (Personal communication, February 20, 1998).

The history of the fire service is abundant with heroic deeds by men and women who risk their

lives to help a neighbor, a friend, a citizen. The unforgettable picture from the Oklahoma City bombing,

showing a Firefighter bringing the little girl out of the destroyed building, reinforces the universal image

of a firefighter. In order to alter that stereotypical image and devote emphasis, effort and budgets to

prevention the entire culture must change.

2.   What does it take to change organizational culture?

Merriam Webster's Collegiate Dictionary, defines culture as: the set of shared attitudes, values,

goals, and practices that characterizes a company or corporation. In the fire service these are deeply

imbedded in a long and strong historical tradition. Changing this culture would involve a protracted

period of time and various approaches at numerous levels. One of the biggest impediments to moving

forward is corporate (departmental) culture(Morris and Brandon, 1993). The obstacles are magnified

when the change sought is the culture itself. Clearly, trying to re-engineer without challenging basic

assumptions will not bring the desired results (Morris and Brandon 1993). Since culture is shared by

all in the organization, so must the desire to change and the work needed to achieve this. In the

enclosed survey, 70 percent of the respondents agree that the entire Fire Department must be retrained

to achieve a culture change. This includes the key agent of change for the department, the Fire Chief.

Management must take the lead in promoting change, staying directly involved from start to finish. In approaching re-engineering, it is important that management clearly indicates support of the work force to assure everyone that few, if any will lose his or her job. (Morris and Brandon 1993). Question eight of the Change Survey asked if, in the view of the respondents, personnel in suppression would lose their jobs were Prevention to become the dominant culture. Seventy-three percent of the answers were in total disagreement with the statement.   This indicated that, in seeking a change, addressing this fear should not be a necessity. Comments added to the survey by respondents, explained that fire safety inspection and prevention work could actually create more positions and that, with the cross-training, suppression personnel could actually improve their professionalism.

Other reasons for resistance to change have been identified and must be addressed. Among these are (a) misunderstanding of the change and lack of trust, (b) a belief that the change is not good for the organization, © a low tolerance for change (Snyder and Clontz, 1997) and (d) associating the top manager with failure.

Good leaders, who count communication skills among their strengths, can usually explain what they are trying to accomplish clearly and simply, and make a convincing case for its importance (Hesselbein, Goldsmith and Beckhard, 1996).   To do this, local line leaders must be committed to the changes. Local line leaders head organizational units large enough to be meaningful microcosms of the larger organization and autonomous enough to undertake meaningful independent change. (Hesselbein el al., 1996) Assistant Chief Robert Cantwell, of the Phoenix Fire Department, refers to this phenomena as "having the right stones in place" (Personal Communication, September 30, 1997).   Local line

leaders should include union officials where applicable. The roll of these leaders is to sanction significant

practical experiments and to lead through their active participation in those experiments (Hesselbein et

al., 1996). This group of upper echelon leaders, referred to as the Top Management Team (TMT) can

use bench marking, the most effective method of achieving both continual improvement and

breakthrough changes (Karlöf, 1996).

 This TMT, research has shown, has a greater effect than the top executive does in

organizational functioning (Huber, 1993). Battalion or District Chiefs are the link that will sell the

changes to the troops through training and inclusion of line personnel in the change process. This

approach will engender trust in those who will implement the change.

 In question number ten of the attached change survey, the clear indication of respondents

is a belief that "a monumental sales job must convince" those involved, that prioritizing prevention is a

good change for a fire department. Although the fire service's mission is to save lives and property, this

cannot always be accomplished on the end of a hose line (Bachtler and Brennan ,1995).   If one life is

saved by adopting an offensive culture in discharging fire service duties how can anyone argue that the

needed efforts to affect the change were wrong for the organization. Unfortunately, documenting lives

saved because fires never happened is a nearly impossible task. The best that can be done is to

compare statistics for fires and other emergencies before and after the program implementation.

 In four years of the Learn Not to Burn (LNTB) program in Portland, Oregon, fire responses

declined, false alarms decreased in number, and fire deaths and injuries were reduced. The belief is that

the LNTB program played a significant part in these decreases. In Philadelphia, the fire department's

Community Outreach Operational Procedures instituted in 1989, is credited with reducing the number

of fire deaths from 103 in 1989 to 68 in 1990. This program included twelve approaches in prevention

in which suppression forces participated. They included attending neighborhood police community

workshops and installing smoke detectors for residents (Skarbek, 1992).   In Prince George County, a

campaign for sprinkler system requirements was sold to the city fathers when the cost of fire

suppression activities was projected much higher without sprinklers when compared to the cost if

sprinklers were present.

Resistance to change is amplified within the fire department should the fire chief have a history of

failed projects. Top managers' beliefs determine the organizational strategies, structures and cultures

(Huber and Glick, 1993). Using a TMT can help overcome a negative reputation of the top manager.

The effects of any one manager's personality on change is diluted by the effects of personalities of other

managers involved (Huber and Glick, 1993). Also negating an aura of failure attributed to the Fire

Chief, is utilizing more people directly in developing and instituting the change. Face to face

communications reinforce a trend toward participative corporate cultures, the empowerment of

employees and greater closeness between employer and employee (Huber, 1993). Allowing company

officers and crews to develop and implement prevention programs would give them a vested interest in

seeing to the success of these programs. Ultimately, the top manager must be able to assume risks and

develop a reputation of being a visionary (Morris and Brandon, 1993).

Research questions number three through five are intimately tied to the chief executive officer,

the Fire Chief. All three are included in the following section.

3. How much of the organizational culture is derived from the leader? 4. What

leadership traits make the best change agent? 5. Can a culture change occur with an

incumbent chief executive officer?

Three ways have been identified in the process of building culture. First, the entrepreneurs only hire and keep subordinates who think and feel as the entrepreneurs themselves do. While most Fire Chiefs usually depend on Personnel Departments to recruit and hire firefighters, they still have input in developing the standards new employees must meet. The second process in building culture is the chief's influence in indoctrinating and socializing subordinates to his or her way of thinking and feeling. Thirdly, the chief's own behavior is a role model that encourages subordinates to identify with him or her and thereby internalize the chief's beliefs, values and assumptions (Hesselbein et al., 1996). The chief greatly sways the local line leaders mentioned above by mentoring them to mature, to understand political complexities and to communicate their ideas and accomplishments to others (Hesselbein et al., 1996).

As in most organizations, the success or failure of the fire department is credited to or blamed on the chief executive officer. The leader's entire personality becomes embedded in the culture of the organization. Look west and see. Alan Brunacini is progressive and innovative and the Phoenix Fire Department, which he leads, is similarly perceived nationwide. This author has met two of Chief Brunacini's staff chiefs. The impression these two men left was that no idea or suggestion was too far "out of the box" to be considered.

The culture of an organization must reflect the leader's because he or she should be able to gain consensus on common causes and common sets of principals in order to reach goals considered important by the leader (Hesselbein et al., 1996). This inherent bond between organizational culture and its leader dictates that any changes in that culture involve the leader as

a change agent.

Culture is changed - in reality enlarged - through changes in various key concepts in the mental models of people who are the main carriers.   As the principal change agent, the chief must be adaptable enough to "bite the bullet" and destroy some central elements in the organization (Hesselbein et al., 1996). Unselfishness leads to letting go of ideas "owned" by the chief and obstructing change. Advances are made by people not encumbered by past paradigms (Morris, 1993).

To affect any desired change, the leader must be credible. The first step toward credibility is clarity of personal values (Hesselbein, 1996).   Mahatma Ghandi believed that his personal life gave him the credibility to be a successful leader. If the messenger is not believed, how can the message be accepted? This factor extends to any top management team assigned to change activities. When the Chief decides to make a change and picks his "stones" to place strategically, the chief must be perceptive enough to recognize strengths and weaknesses in subordinates. Rich Teerlink, CEO of Harley Davidson said, "If you empower dummies, you get dumb decisions faster" (Hesselbein et al., 1996)

Higher levels of formal education seem to make leaders better change agents. These managers tend to use more complex approaches to decision making and consider more factors and interrelationships (Huber, 1993).   The final results of the changes, based on some of these factors and interrelationships, are not always completely in focus when projects are initiated. Tolerance of such ambiguity in top managers leads to more frequent organizational changes (Huber, 1993).

A forward-looking chief can see the department's future needs and compare them with current needs. He must have a strong sense of direction for the organization and be an achiever (Huber, 1993).

The "changing" chief does not sit on past success, but forges on.

When the change sought is major, such as the organizational culture, will the incumbent chief be able to accomplish this? The existing culture is in large part attributable to the chief. If, for an indeterminate number of years, the department has concentrated and excelled in suppression activities under certain leadership, can the emphasis be converted to prevention on the chief's say so?

Question number five above is addressed by statement number three of the attached survey (See Appendix A).   Forty-one percent, of all respondents, "Totally Disagreed" that the incumbent fire chief must be replaced in an attempt to reestablish a department's culture. This group included 28 chief officers, 20 company officers, and 12 crew members. Only 10 percent "Totally Agree" that the chief must be replaced. These small percentage was made up of 1 chief officer, 3 company officers and 12 crew members. Loyalty to the Chief may be a consideration of the higher ranking personnel whose opinion is to keep the chief. Modern organizational theory appears to conflict with results obtained by this question in the survey.

Top managers' beliefs determine the organizational strategies, structures and cultures they prefer and seek to create. Accordingly, chief executive officers can obstruct change if they have been in place for a long time and their way of accomplishing objectives is well known and accepted. A fire chief's professionally productive period is commonly accepted to be five years in duration.   Longer tenure of leaders in an organization leads to less frequent organizational changes (Huber, 1993). The "new broom" eventually gets old and comfortable. Older managers have more to lose and less time to recover from risks caused by changes.

Leaders who "own" their organizations are reluctant to change. They tend to see the workers

in the "trenches" as extensions of their property not as people who can improve the organization by implementing needed change. Only what the chief deems necessary is changed or even considered. A paradigm shift is needed if this is how problems are solved within the organization (Morris and Brandon, 1993) Would a *new* chief, not living under any preestablished paradigm be more apt to move forward with a change?

Culture cannot be manipulated by the chief simply by the announcing changes or instituting programs. Leaders cannot arbitrarily change culture in the sense of eliminating dysfunctional elements (Hesselbein et al., 1996).

A new chief is not limited by the expectation of his or her reputation and the traditions of the organization. On the contrary, changes are expected when top management is replaced. Transformations of culture occur through a genuine change in the leader's behavior and through embedding new definitions in organizational processes and routines. (Hesselbein et al., 1996).

DISCUSSION

This research showed that the clear direction for the fire service of the future is in the area of prevention and other services for the public. Time, effort and resources, for mitigating, experience improvement and expansion based on the existence and projected increases of fires and other life and limb threatening events. This is contrary to any agency who exists to serve the citizens and to stop their suffering.

The many and diversely different prevention and safety programs that are being developed and

implemented throughout the nation speak to the service's desire to change direction and priority.

Although putting a dollar amount to the success of prevention activities is difficult, some results

mentioned were attributed to said programs. Fire Marshal Adolf Zubia, of the Las Cruces, New

Mexico Fire Department's Fire Prevention Services, likes to use his version a famous phrase, "An

ounce of prevention is worth a pound of suppression" (Personal Communication, February 20, 1998).

Additionally more fire services agencies are devoting resources to other than fire emergencies as citizens

demand more service. These vary greatly, from programs addressing gang activity and its effect on

juvenile fire setters (Dittman, 1991) to the use of Cable TV to address safety concerns of the elderly

who are no longer as mobile as once they were (Teague, 1991).

Although little doubt is left by the research that a prevention culture is the future, also obvious is

that the current suppression culture must be transformed in order to shift the priorities of the fire

department. The survey taken of current fire service personnel reveals that the majority believe a

change must be made and is a natural progression in serving the community. The same survey indicates

that convincing all involved of this would entail a monumental sales job followed by massive changes in

major concepts held by the majority of personnel in the service. Statement number six of the survey

clearly indicates that the entire fire department force must be retrained in moving from a suppression to a

prevention culture.

One change that organizational theory, in the reviewed literature, insists upon and the survey

contradicts, involves the top manager. Trying to make a cultural change with an incumbent chief of any

tenure presents more challenges than opportunities. The respondents displayed a loyalty that might be

more related to tradition than to the reality of change dynamics. "The chief may not always be right, but

he is always the chief," is a pronouncement the author has heard often since joining the service twenty-six years ago.

The culture of an organization is so closely tied to the top manager that a change in the former would necessitate a virtual make over of an incumbent leader's character and personality. The easier option is to bring in a different person to effect the change, someone without the baggage of tradition within the department. This new chief executive officer would need many specific leadership and personal traits to successfully handle the change problem. The more dynamic, progressive and innovative chiefs are doing just so in numerous cities.

RECOMMENDATIONS

Analyzing statistics for most fire departments would reveal an increasing number of responses to emergencies while prevention activities do not grow at the same rate. Recommendations derived from this study include a serious evaluation of the number and types of responses that are putting demand on the largest amount of resources, followed by concentrated efforts to develop and implement strategies to reduce these incidents at the front end, preventing them, instead of waiting to mitigate them. No longer should this concern be limited to fire dangers only. Fire Service agencies answer calls to motor vehicle incidents, sudden illnesses, a variety of non-vehicular accidents, drownings, cave-ins, gun shot wounds and more. Any study of the need for prevention efforts must include these. Discovering the causes of these should lead to developing strategies to remove or reduce said causes and hee number of responses.

To guarantee some measure of success in prevention methods, department administrations must rethink budget allocations. Money spent, "by choice", in creating, adopting and implementing programs to address prevention should increase. This would, ideally, reduce the money spent by forces that handle contingencies. Spending money for mitigation is not a matter of choice once the problem has erupted.

With the fire service being so entrenched in tradition, accomplishing the change in priority required, means a culture change, from defensive to offensive. This study recommends addressing many forms of resistance to change, starting with appointing a new fire chief, one who would not be encumbered by existing paradigms, nor have a history and reputation which subordinates would consider in reacting to the call for change. Line chiefs must also buy into the culture change from the start as a Top Management Team.

Also recommended is that firefighters, city leaders and the community be convinced of the need for change by demonstrating how the change will benefit all concerned. The new direction of money allocations will then be understood and accepted.

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APPENDIX A

CHANGING THE CULTURE OF THE FIRE DEPARTMENT

Circle your agreement or disagreement with these statements using the following:

1 - Totally agree   2 - Somewhat agree   3 - Somewhat disagree   4 -Totally disagree

TO CHANGE THE CULTURE OF THE FIRE DEPARTMENT FROM A DEFENSIVE MODE TO AN OFFENSIVE MODE:

1. The order to do so must be given by the city leader

> **1**   **2**   **3**   **4**

2. The citizens served by the department must be advised and the final decision made based on the desire of these

> **1**   **2**   **3**   **4**

3. The fire chief must be replaced

> **1**   **2**   **3**   **4**

4. The fire chief must be retrained

> **1**   **2**   **3**   **4**

5. The fire chief must simply follow the orders of the city leaders

> **1**   **2**   **3**   **4**

6. The entire FD force must be retrained

> **1**   **2**   **3**   **4**

7. The financial gains from such a change must be proven to city leaders

> **1**   **2**   **3**   **4**

8. Means that personnel in suppression will lose their jobs

> **1**   **2**   **3**   **4**

9. Will upset the unions because firefighters are not inspectors

> **1**   **2**   **3**   **4**

10. A monumental sales job must convince the public that their participation in fire prevention
is worth the effort in the eventual reduction in risks and cost to them in tax dollars.   **1**
        2   **3**   **4**

11. Is a "pipe dream" of managers who don't realize the strength of tradition.

                    1   **2**   **3**   **4**

12. Will have to overcome 100 of years of celebrating by line personnel when a response is
made to a "good" fire.

                    1   **2**   **3**   **4**

13. Takes too long to show a profit for the people who hold the purse strings.

                    1   **2**   **3**   **4**

14. Destroys the morale of firefighters who signed on to fight the "red menace."

                    1   **2**   **3**   **4**

15. Will take so long to show results that the goal will fade and not be achieved

                    1   **2**   **3**   **4**

16. Should be relegated to the Fire Prevention Division and not spread to the whole department.

                    1   **2**   **3**   **4**

17. Necessitates the involvement of the entire community.

                    1   **2**   **3**   **4**

18. Must include an approach to reduce all risks in the community not only fires.

                    1   **2**   **3**   **4**

19. Could result in the reduction of fire fighting forces as the emphasis is placed and success
is gained through prevention efforts.

                    1   **2**   **3**   **4**

20. If the answer to number 19 is true, the result is undesirable.

1   **2**   **3**   **4**

YOUR RANK

YOUR AGENCY AND NUMBER OF PERSONNEL
NUMBER OF POPULATION SERVED

CHANGING THE CULTURE OF THE FIRE DEPARTMENT

Circle your agreement or disagreement with these statements using the following:

1 - **Totally agree   2 - Somewhat agree   3 - Somewhat disagree   4 -Totally disagree**

TO CHANGE THE CULTURE OF THE FIRE DEPARTMENT FROM A DEFENSIVE MODE TO AN OFFENSIVE MODE:

1. The order to do so must be given by the city leader

17	**39**	**40**	**67**

2. The citizens served by the department must be advised and the final decision made based on the desire of these

17	**65**	**32**	**49**

3. The fire chief must be replaced

17	**23**	**49**	**66**

4. The fire chief must be retrained

47	**61**	**29**	**26**

5. The fire chief must simply follow the orders of the city leaders

6	**22**	**61**	**69**

6. The entire FD force must be retrained

52	**60**	**29**	**18**

7. The financial gains from such a change must be proven to city leaders

48	**71**	**28**	**10**

8. Means that personnel in suppression will lose their jobs

2	**11**	**30**	**117**

9. Will upset the unions because firefighters are not inspectors

17	**59**	**40**	**39**

10. A monumental sales job must convince the public that their participation in fire prevention
   is worth the effort in the eventual reduction in risks and cost to them in tax dollars.   **73**
        65   **13**   **11**

11. Is a "pipe dream" of managers who don't realize the strength of tradition.

           12   **35**   **65**   **68**

12. Will have to overcome 100 of years of celebrating by line personnel when a response is
    made to a "good" fire.

              20   **53**   **38**   **42**

13. Takes too long to show a profit for the people who hold the purse strings.

              13   **53**   **61**   **29**

14. Destroys the morale of firefighters who signed on to fight the "red menace."

              18   **39**   **50**   **46**

15. Will take so long to show results that the goal will fade and not be achieved

              9   **42**   **61**   **37**

16. Should be relegated to the Fire Prevention Division and not spread to the whole department.

              17   **18**   **26**   **94**

17. Necessitates the involvement of the entire community.

              50   **67**   **26**   **9**

18. Must include an approach to reduce all risks in the community not only fires.

              71   **51**   **21**   **8**

19. Could result in the reduction of fire fighting forces as the emphasis is placed and success
   is gained through prevention efforts.

              13   **34**   **52**   **55**

20. If the answer to number 19 is true, the result is undesirable.

14   **16**   **31**   **72**

YOUR RANK

YOUR AGENCY AND NUMBER OF PERSONNEL
NUMBER OF POPULATION SERVED

APPENDIX B

December 5, 1997

Dear Colleague:

My name is Roberto Rivera. I am a Deputy Chief with the El Paso Fire Department. I am working on my third Applied Research Project for the Executive Fire Officers Program of the National Fire Academy. The enclosed survey will help with my current paper, tentatively entitled, "Changing the culture of the Fire Department from a Defensive to an Offensive One . . . to do this, does the Fire Chief have to be replaced?" (I may change the above to "Reactive" and "Proactive" as I wouldn't want our mission to be misconstrued to one of offending people.)

My project explores the fact that most fire departments dedicate the major part of resources in personnel, equipment, training and so on, to mitigation. A statement such as, "That building is a fire waiting to happen" ordinarily leads fire agencies to preplan for the contingency. In an offensive mode, steps would be taken to keep the fire from happening.   However the norm is that, "real" firefighters, fight fires. " Let the Fire Prevention Division worry about prevention."

In the last class I attended at the National Fire Academy, **Strategic Management of Community Risk Reduction**, the emphasis was on prevention as a global activity, one which studied all risks in the community and sought to target areas where these could be addressed and reduced. This is the focus of my paper.

I need your response soon so I can meet my deadline.

Thanks for any help you can give me with this project.

Roberto Rivera

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